APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,942	09/26/2001	Daniel Blaukopf	P-3600-US	9894

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EXAMINER
ZHEN, LI B

ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/963,942	BLAUKOPF ET AL.
	Examiner	Art Unit	
	Li B. Zhen	2194	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 May 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>16-53</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>16-53</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/7/05</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 16 – 53 are pending in the application.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April

25, 2005 has been entered.

Response to Arguments

3.   Applicant's arguments with respect to the claims have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

5.   Claims 28 – 39 and 47 – 53 are rejected under 35 U.S.C. 112, first paragraph, as

failing to comply with the written description requirement. The claim(s) contains subject

matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application

was filed, had possession of the claimed invention.

Currently amended claim 28 recites the new limitation "the first mediation module

passing the function call to the native language application" [lines 15 – 16]. Throughout

the specification, applicant disclose a second mediation module linked to the native

language application and the second mediation module passing function calls to the

native language application. Examiner was unable to locate any disclose for the first

mediation module passing a function call to a native language application.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 16 – 18, 20, 21, 23, 24, 26 – 30, 32, 33, 35, 36, 38 – 41, 43, 44, 46, 47,**

49, 50, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 6,314,429 to Simser [cited in the previous office action] in view of

U.S. Patent No. 6,901,588 to Krapf et al. [hereinafter referred to as Krapf].

8.   As to claim 16, Simser teaches the invention substantially as claimed including a

computer [col. 2, lines 40 – 45], comprising:

a platform independent language application configured to run on the computer

[App1, App2, App3 Java Server, Fig. 1; col. 2, line 40 – col. 3, line 16];

a first mediation module linked to the platform independent language application

[App 1 API class 22; col. 2, lines 57 – 67];

a native language application configured to execute in a native language of a

processor of the computer [legacy C function 14; col. 2, lines 39 – 57]; and

a second mediation module linked to the native language application [conversion

library 18 is an API provided DLL located within the Native C mapping layer 16 for

linking a Java.TM. application to a C application; col. 3, lines 15 – 23];

wherein the first mediation module is configured to communicate with the second

mediation module [APP 1 API Class 22 calls the APP 1 Native Method Interface 20; col.

2, line 57 – col. 3, line 16] to provide communications between the platform independent

language application and the native language application [col. 3, lines 15 – 23]. Simser

clearly discloses bi-directional conversion library that converts function calls from Java

to C and vice versa [col. 10, lines 47 – 55]. Simser does not fully describe the steps to

process a function call from a native language application to a platform independent

language application.

However, Krapf teaches a first mediation module [wrap a Java interface with a

C++ proxy interface so that 1) C++ components may access and use the Java interface

itself (discussed immediately below), and 2) to implement the abstract methods of the

Java interface with concrete C++ methods; col. 12, lines 30 – 60] linked to a platform

independent language application [Java components 200; col. 12, lines 39 – 45], a

second mediation module [Java proxy component; col. 38, lines 15 – 28] linked to a

native language application [C++ components; col. 12, lines 39 – 60] wherein in

response to receiving a function call from the native language application, the second

mediation module is configured to communicate the function call to the first mediation

module [Proxy layer 606c' may be a Java proxy layer for C++ security module 612, and

may use C++ proxy classes in the native implementations of Java methods; col. 58,

lines 23 – 29]; and wherein the first mediation module is configured to pass the function

call to the platform independent language application [C++ proxy class is a C++ class

that delegates execution of methods and access of fields to a corresponding Java class;

col. 5, lines 33 – 44].

9.   It would have been obvious to a person of ordinary skill in the art at the time of

the invention to apply the teaching of processing a function call from a native language

application to a platform independent language application as taught by Krapf to the

invention of Simser because provides a method and apparatus for representing and

' implementing a concept between two functional domains (e.g., programming

languages) by using a proxy component in a first domain to wrap a component of a

second domain, where the proxy component has a semantic usability in the first domain

closely corresponding to the semantic usability of the underlying component from the

second domain [col. 2, lines 8 – 22 of Krapf].

10.   As to claim 17, Simser teaches in response to receiving a function call from the

platform independent language application, the first mediation module is configured to

communicate the function call to the second mediation module [APP 1 API Class 22

calls the APP 1 Native Method Interface 20; col. 2, line 57 – col. 3, line 16]; and

wherein the second mediation module is configured to pass the function call to

the native language application [After translating the Java.TM. objects into equivalent C

data structures, the Native Method Interface calls a corresponding legacy App 1 API 14;

col. 2, line 57 – col. 3, line 16].

11.   As to claim 18, Simser teaches the second mediation module is configured to

translate the function call and associated parameters into a format suitable for the

native language application [The mapping layer 16 will take any Java.TM. data

submitted from the calls from the API layer 22 located inside the middle layer and

translate the Java.TM. data 12 into an equivalent C data structure; col. 3, lines 1 – 16].

12.   As to claim 20, Simser teaches the native language application is configured to

perform the function call and provide corresponding results to the second mediation

module [accesor is a method or function that returns the value of encapsulated data;

col. 3, lines 23 – 37]; wherein the second mediation module is configured to

communicate the results to the first mediation module and wherein the first mediation

module is configured to pass the results to the platform independent language

application [layer 16 uses a bi-directional Java.TM.-to-C conversion library 18 to convert

Java.TM. data objects 12 into equivalent C structures 20… it will be understood by a

person skilled in the art how to convert data structures from C to Java.TM., or with

appropriate substitutions of functions, convert between two other different computer programming languages; col. 2, lines 40 – 58].

13.   As to claim 21, Simser teaches the first mediation module is configured to translate the results into a format suitable for the platform independent language application [col. 2, lines 40 – 58].

14.   As to claim 23, Simser teaches the first mediation module and the second mediation module are configured to communicate with each other one or more of function calls [calls an unmodified legacy C function 14; col. 2, lines 40 – 57], function parameters [data object 12 may map into multiple parameters in the function signature; col. 2, lines 40 – 57], function results [col. 3, lines 23 – 37], and event notifications.

15.   As to claim 24, Simser teaches the platform independent language application is configured to launch the native language application [calls a corresponding legacy App 1 API 14; col. 3, lines 1 – 15].

16.   As to claim 26, Simser teaches a plurality of native language applications [Legacy App1 API, Legacy App3 API, Fig. 1; col. 2, lines 40 – 67] each linked to a corresponding one of a plurality of second mediation modules [Each legacy API 14 requires an associated mapping layer 16; App1 and App3 Native Method Interface; col. 2, lines 39 – 67], wherein the platform independent language application is configured to

pass function calls to each of the plurality of native language applications through one of

a plurality of first mediation module [calls a method provided by its corresponding App 1

API class 22 or accesses a Database API class 24; col. 2, line 57 – col. 3, line 16] and

one of the second mediation modules corresponding to the native language application

to which a particular function call is being passed [After the App 1 API class 22 or the

Database API class 24 has been accessed, the mapping or Native C layer 16 is

accessed through a corresponding Native Method Interface, the APP 1 Native Method

Interface 20 and a Database Native Method Interface 26 respectively; col. 2, line 57 –

col. 3, line 16].

17.   As to claim 27, Simser teaches the platform independent language is Java [col.

2, lines 40 – 57].

18.   As to claims 28 – 30, 32, 33, 35, 36, 38 and 39, these are method claims that

correspond to system claims 16 – 18, 20, 21, 23, 24, 26 and 27; note the rejections to

claims 16 – 18, 20, 21, 23, 24, 26 and 27 above, which also meet these method claims.

19.   As to claim 40, Simser as modified teaches a method, comprising:

        a platform independent language application [App1, App2, App3 Java Server,

Fig. 1; col. 2, line 40 – col. 3, line 16 of Simser] running on a computer initiating an

instance of a native language application [an instance of C++ class 517 is constructed

using constructor 518. Execution of constructor 518 causes the execution of C++

superclass 510's constructor 512; col. 41, lines 23 – 33 of Krapf] and a mediation

module [conversion library 18 is an API provided DLL located within the Native C

mapping layer 16 for linking a Java.TM. application to a C application; col. 3, lines 15 –

23 of Simser], wherein the native language application executes in a native language

[legacy C function 14; col. 2, lines 39 – 57 of Simser] of a processor of the computer;

the platform independent language application [Java application of Simser]

communicating with the native language application [C application of Simser] through

the mediation module [conversion library 18 is an API provided DLL located within the

Native C mapping layer 16 for linking a Java.TM. application to a C application; col. 3,

lines 15 – 23 of Simser].

20.   As to claim 41, Simser as modified teaches the first mediation module is

configured to translate the function call and associated parameters into a format

suitable for the platform independent language application [col. 25, lines 25 – 35 of

Krapf].

21.   As to claim 43, Simser as modified teaches the platform independent language

application is configured to perform the function call and provide corresponding results

to the first mediation module [accesor is a method or function that returns the value of

encapsulated data; col. 3, lines 23 – 37 of Simser];

wherein the first mediation module is configured to communicate the results to

the second mediation module; and wherein the second mediation module is configured

to pass the results to the native language application [layer 16 uses a bi-directional

Java.TM.-to-C conversion library 18 to convert Java.TM. data objects 12 into equivalent

C structures 20... it will be understood by a person skilled in the art how to convert data

structures from C to Java.TM., or with appropriate substitutions of functions, convert

between two other different computer programming languages; col. 2, lines 40 – 58 of

Simser].

22.   As to claim 44, Simser as modified teaches the second mediation module is

configured to translate the results into a format suitable for the native language

application [col. 25, lines 25 – 35 of Krapf].

23.   As to claim 46, Simser as modified teaches a plurality of platform independent

language applications [Java components 200; col. 12, lines 39 – 45 of Krapf] each

linked to a corresponding one of a plurality of first mediation modules [C++ components;

col. 12, lines 30 – 60 Krapf], wherein the native language application is configured to

pass function calls to each of the plurality of platform independent language applications

[col. 58, lines 23 – 29 of Krapf] through one of a plurality of second mediation modules

[Java proxy component; col. 38, lines 15 – 28 of Krapf] and one of the first mediation

modules corresponding to the platform independent language application to which a

particular function call is being passed [col. 5, lines 33 – 44 of Krapf].

24.   As to claim 47, Simser as modified teaches the first mediation module translating

the function call and associated parameters into a format suitable for the platform

independent language application [col. 2, lines 40 – 58 of Simser].

25.   As to claim 49 – 50 and 53, this is similar in scope to claim 43 – 44 and 46;

therefore, this claim is rejected for the same reasons as claim 43 – 44 and 46 above.

26.   As to claim 52, Simser as modified teaches the second mediation module

communicating with the first mediation module comprises the second mediation module

and the first mediation module communicating with each other one or more of function

calls [calls an unmodified legacy C function 14; col. 2, lines 40 – 57 of Simser], function

parameters [data object 12 may map into multiple parameters in the function signature;

col. 2, lines 40 – 57 of Simser], function results [col. 3, lines 23 – 37 of Simser], and

event notifications.

27.   **Claims 19, 22, 25, 31, 34, 37, 42, 45, 48 and 51 are rejected under 35 U.S.C.**

103(a) as being unpatentable over Simser and Krapf further in view of U.S. Patent

No. 5,491,800 to Goldsmith [cited in the previous office action].

28.   As to claims 19 and 22, Simser as modified does not teach the first mediation

module communicating function call and associated parameters to the second

mediation module in a stream protocol format.

However, Goldsmith teaches communicating function call and associated

parameters in a stream protocol format [translator enables the "client" protocol stack to

communicate with a server protocol stack over a network communications channel; col.

15, line 52 – col. 16, line 8].

29.   It would have been obvious to a person of ordinary skill in the art at the time of

the invention to apply the teaching of communicating function call and associated

parameters to the second mediation module in a stream protocol format as taught by

Goldsmith to the invention of Simser as modified because this ensures a consistent

format for the presentation of data between the two address spaces [col. 5, lines 10 –

14 of Goldsmith].

30.   As to claim 25, Simser as modified teaches the platform independent language

application is configured to cause the first mediation module to issue a command that

causes an operating system to launch an instance of the second mediation module and

the native language application [a task application 754 communicates with the CSF

interface 760 by creating an RPC object 756 and an API object 758 within its process

address space 752; col. 11, lines 45 – 60 of Goldsmith].

31.   As to claims 31, 34 and 37, these are method claims that correspond to system

claims 19, 22 and 25; note the rejections to claims 19, 22 and 25 above, which also

meet these method claims.

32.   As to claim 42, Simser as modified teaches the second mediation module is

configured to communicate the function call and associated parameters to the first

mediation module in a stream protocol format [col. 15, line 52 – col. 16, line 8 of

Goldsmith].

33.   As to claim 45, Simser as modified teaches the first mediation module is

configured to communicate the results to the second mediation module in a stream

protocol format [col. 15, line 52 – col. 16, line 8 of Goldsmith].

34.   As to claim 48, Simser as modified teaches the second mediation module

communicating the function call to the first mediation module comprises the second

mediation module communicating the function call and associated parameters to the

first mediation module [col. 58, lines 23 – 29 of Krapf] in a stream protocol format [col.

15, line 52 – col. 16, line 8 of Goldsmith].

35.   As to claim 51, this is similar in scope to claim 45; therefore, this claim is rejected

for the same reasons as claim 45 above.

Conclusion

36.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for

the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the

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Li B. Zhen
Examiner
Art Unit 2194

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100